UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,774	06/16/2000	Douglas Gourlay	CISCO-2369	1171

7590 03/04/2004

David B Ritchie
D'Alessandro & Ritchie
P O Box 640640
San Jose, CA 95164

EXAMINER	
WON, YOUNG N	

ART UNIT	PAPER NUMBER
2155	11

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/595,774	GOURLAY, DOUGLAS	
	Examiner	Art Unit	
	Young N Won	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 32, 45, 50, and 55 have been amended. Claims 1-55 have been re-examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 32, 45, 50, and 55 are rejected under 35 U.S.C. 102(e) as being anticipated by Civanlar et al. (US 6078963 A).

As per claims 32, 45, 50, and 55, Civanlar teach a method, a program storage device readable by a machine, tangibly embodying a program of instructions executable

by the machine, an apparatus and an apparatus providing means, for handling a request for content from a user in a computer network, the method, program, and apparatus including: a memory (see Fig.2, #200 and col.4, lines 29-30); a network interface coupled to said memory (see Fig.2, #201 or #202 and col.4, lines 30-34); and a processor (see Fig.2, #204 and col.4, lines 34-35 & 40) for performing the steps of: receiving the request at a switch or router (see col.3, lines 37-41 and col.6, lines 66-67); examining an original location address in a header in the request (see col.3, lines 58-62); comparing (see col.4, lines 3-7) said original location address with one or more entries in a table in a cache (see Fig.2, #209 & #240 and col.4, lines 36-37) coupled to said switch or router (see Fig.2), if said cache exists (see col.4, lines 35-38 & 40-42 and col.4, line 67 to col.5, line 3); forwarding content from said cache to said user if an entry in said table in said cache has an original location field identical to said original location address (see col.8, lines 23-46 and col.10, lines 6-7); and transferring said request to another switch or router if said cache does not exist or said cache does not have an entry in said table with an original location field identical to said original location address (see col.9, lines 4-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 37 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 6078963 A).

As per claim 37, Civanlar teaches of an apparatus for updating content in a computer network, the content located at a web server and having an original location, the apparatus including: a cache (see Fig.2, #203); a routing table entry creator (see col.3, lines 23-27) coupled to said cache; and a routing table entry forwarder (see Fig.1, #105) coupled to said cache and to said routing table entry creator. Civanlar does not explicitly teach of a routing table entry creator as it's own device or module, but it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any various integration of the modules so long as the functionality of the apparatus as a whole remain the same (see Civanlar: col.2, lines 46-53; col.4, lines 47-58; and col.5, lines 4-5).

As per claim 40, teaches an apparatus for handling a request for content from a user in a computer network, including: a request receiver (see Fig.2, #202 or #212); a cache (see col.7, lines 3-4 & 24-28); an original location address examiner coupled to said request receiver and to said cache (see col.7, lines 3-4 & 24-28); an original location address comparator coupled to said original location address examiner and to said cache receiving the request at a switch or router (see col.7, lines 3-4 & 24-28); a content fowarder (see Fig.1, #105) coupled to said original location address comparator and to said cache; and a request transferer (see Fig.2, #202 or #212) coupled to said

request receiver (see Fig.2, #202 or #212) and to said original location address comparator. Civanlar does not explicitly teach of the coupling of the devices or modules, but it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any various integration of the modules so long as the functionality of the apparatus as a whole remain the same (see Civanlar: col.2, lines 46-53; col.4, lines 47-58; and col.5, lines 4-5).

4. Claims 1-5, 10-14, 19-23, 28-29, 33, 38-39, 41-44, 46-49, and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 6078963 A) in view of Green (US 5517494 A).

INDEPENDENT:

As per claim 1, 41, 46, and 51, Civanlar teaches a method, a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine, an apparatus, and an apparatus providing means, for making content available for users in a computer network, the content having an original location (inherency), the method, program, and apparatus including: a memory (see Fig.2, #200 and col.4, lines 29-30); a network interface coupled to said memory (see Fig.2, #201 or #202 and col.4, lines 30-34); and a processor (see Fig.2, #204 and col.4, lines 34-35 & 40) for performing the steps of: forwarding the content to one or more caches (see col.8, lines 4-6) distributed throughout the computer network (see col.1, lines 50-52), each of said caches coupled to a switch or router (see Fig.2); storing the content in each of said one or more caches (see col.3, lines 53-55 and col.4, line 67 to col.5, line 3); and

storing a record identifying said content in each of said one or more caches (see col.3, lines 54-55: "and/or other data for use by the forwarding engine 105 and routing engine 107"), said record having an original location field identifying the original location of said content (see col.7, lines 3-4 & 24-28). Civanlar does not explicitly teach of said record having a distance field indicating a distance from said particular cache to the original location of said content, and a field indicating a version number of said content. Green teaches of said record having a distance field indicating a distance from said particular cache to the original location of said content (see Fig.3C, #79; col.7, lines 56-62; and col.8, lines 47-50), and a field indicating a version number of said content (see Fig.3B, #84 and col.7, lines 26-31). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Green within the system of Civanlar by implementing distance and version number field within the method, program, and apparatus for making content available for users in a computer network because Civanlar teaches that other data may be used by the forwarder (see col.3, lines 54-55) and "routing tables and/or other similar data" relates to the data received (see col.3, lines 58-62. Therefore, any data relevant to the request and response could be employed to efficiently perform the same so long as too many entry fields are not used which would result in a degradation of performance.

As per claims 10, 42, 47, and 52, Civanlar teaches a method, a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine, an apparatus, and an apparatus providing means, for making content available for users in a computer network, the content having an original location, the

method, program, and apparatus including: a memory (see Fig.2, #200 and col.4, lines 29-30); a network interface coupled to said memory (see Fig.2, #201 or #202 and col.4, lines 30-34); and a processor (see Fig.2, #204 and col.4, lines 34-35 & 40) for performing the steps of: receiving the content forwarded from the original location (see col.6, line 66 to col.7, line 1); storing the content in a cache (see col.3, lines 53-55; col.4, line 67 to col.5, line 3; and col.8, lines 4-6) coupled to a switch or router (see Fig.2); and storing a record identifying the content in said cache (see col.3, lines 54-55: "and/or other data for use by the forwarding engine 105 and routing engine 107"), said record having an original location field identifying the original location of said content (see col.7, lines 3-4). Civanlar does not explicitly teach of said record having a distance field indicating a distance from said cache to the original location of said content, and a field indicating a version number of said content. Green teaches of said record having a distance field indicating a distance from said particular cache to the original location of said content, and a field indicating a version number of said content (see claim 1 rejection above).

As per claims 19, 43, 44, 48, 49, 53, and 54, Civanlar teaches a method, a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine, an apparatus, and an apparatus providing means, for updating content in a computer network, the content located at a web server and having an original location, the method, program, and apparatus including: a memory (see Fig.2, #200 and col.4, lines 29-30); a network interface coupled to said memory (see Fig.2, #201 or #202 and col.4, lines 30-34); and a processor (see Fig.2,

#204 and col.4, lines 34-35 & 40) for performing the steps of: creating a routing table entry for the content in a cache (see col.3, lines 24-26 & 30-37 and col.8, lines 4-6), said routing table entry having an original location field identifying the original location of said content (see col.7, lines 3-4); forwarding said routing table entry to another of one or more caches in the computer network to allow said another of one or more caches to create a routing table entry for the content (see col.3, lines 41-47); and repeating said creating and forwarding for each of said one or more caches (see col.3, lines 41-47). Civanlar does not explicitly teach said routing table entry having a distance field indicating the distance from said cache to the original location of said content, and a version number field indicating a version number of said content. Green teaches of said routing table entry having a distance field indicating the distance from said cache to the original location of said content, and a version number field indicating a version number of said content (see claim 1 rejection above).

DEPENDENT:

As per claims 2, 11, and 20, Civanlar further teaches wherein said original location of said content includes a hypertext transfer protocol uniform resource locator (Inherent: see col.3, lines 58-62: "(IP) packet").

As per claims 3, 12, and 21, Civanlar further teaches wherein said record further includes a field indicating an IP address for a web server hosting said content (see col.3, lines 58-62).

As per claims 4, 13, and 22, Civanlar further teaches wherein said field indicating an IP address further indicates a port number (see col.2, line 59 to col.3, line 1).

As per claims 5, 14, and 23, Civanlar does not teaches wherein said record further includes a field indicating a date and time of the last update to the record. Green teaches wherein said record further includes a field indicating a date and time of the last update to the record (see col.10, lines 5-10).

As per claim 28, Civanlar and Green teach of further including: determining if a record corresponding to an older version of said content is already stored in said cache; and retrieving the content from said original location and storing it in said cache if a record corresponding to an older version of said content is already stored in said cache (see claim 1 rejection above).

As per claim 29, Civanlar and Green further teach wherein said determining include examining said version number field of said record and comparing it with version number fields in records with identical location fields (see claim 1 rejection regarding version number and comparing).

As per claims 33, Civanlar further teach wherein said transferring includes transferring said request to the next switch or router along a path ending with a web server hosting the content (see col.3, lines 59-60: "(IP) packet").

As per claim 38, Civanlar does not explicitly teaches of further including: a record version determiner coupled to said cache (see Fig.209); and a content retriever (see Fig.2, #202 or #212) coupled to said record version determiner. Green teaches of a record version determiner (see claim 1 rejection above). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any various integration of the modules so long as the functionality of the apparatus as a

whole remain the same (see Civanlar: col.2, lines 46-53; col.4, lines 47-58; and col.5, lines 4-5).

As per claim 39, Civanlar does not explicitly teach of further including a cache-to-original-location distance re-computer coupled to said routing table entry creator. Green teaches of a cache-to-original-location distance re-computer (see claim 1 rejection above). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any various integration of the modules so long as the functionality of the apparatus as a whole remain the same (see Civanlar: col.2, lines 46-53; col.4, lines 47-58; and col.5, lines 4-5).

5. Claims 7, 16, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 6078963 A) and Green (US 5517494 A), further in view of Ahmad et al. (US 5878031 A).

As per claims 7, 16, and 25, Civanlar and Green do not teach wherein said record further includes a tag field indicating a Quality of Service process to be applied, when a user attempts to access the content. Ahmad teaches of a tag field indicating a Quality of Service process to be applied, when a user attempts to access the content (see col.2, 56-59). (See claim 1 rejection above).

6. Claims 8, 17, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 6078963 A) and Green (US 5517494 A), further in view of Yamahata (US 5247639 A).

As per claims 8, 17, and 26, Civanlar and Green do not teach wherein said record further includes a cache bypass field indicating whether said content need not be stored in said particular cache. Yamahata teaches of a cache bypass field indicating whether said content need not be stored in said particular cache (see col.4, lines 61-66). (See claim 1 rejection above).

7. Claims 9, 18, 27, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 6078963 A) and Green (US 5517494 A), further in view of Fry et al. (US 4403286 A).

As per claims 9, 18, and 27, Civanlar and Green do not teach wherein said record further includes a server load balancing field indicating a server load balancing process to be applied when a user attempts to access the content. Fry teaches of a server load balancing field indicating a server load balancing process to be applied when a user attempts to access the content (see col.16, lines 22-27). (See claim 1 rejection above).

As per claims 36, teaches of an apparatus for making content available for users in a computer network, the content having an original location, the apparatus including: a content forwarder (see Fig.1, #105); a switch or router coupled to said content forwarder via the computer network (see Fig.1, #102); a cache coupled to said switch or router (see Fig.2, #203 or #209); a content storer (see Fig.2, #210 or #240) coupled to said cache and coupled to said switch or router; and a record storer (see Fig.2, #210 or #240) coupled to said cache and coupled to said switch or router. Civanlar does not

explicitly teach of a server load balancer. Green teaches of a server load balancer (see claim 9 rejection above). Civanlar does not explicitly teach of the coupling of the devices or modules, but it would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ any various integration of the modules so long as the functionality of the apparatus as a whole remain the same (see Civanlar: col.2, lines 46-53; col.4, lines 47-58; and col.5, lines 4-5).

8. Claims 5, 15, 24, 30-31, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Civanlar et al. (US 6078963 A) and Green (US 5517494 A), further in view of Yates et al. (US 6167438 A).

As per claims 6, 15, and 24, Civanlar and Green do not teach wherein said record further includes a field having a billing token or certificate for content peering between providers. Yates teaches of a field having a billing token or certificate for content peering between providers (see col.27, lines 22-23). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Green within the system of Civanlar by implementing a field having a billing token or certificate within the method, program, and apparatus for making content available for users in a computer network because this would allow the servers to authenticate each other when requesting and retrieving information from each other, thereby securing transactions.

As per claim 30, Civanlar and Green do not teach of further including: detecting the alteration of the content with a server load balancer through polling of the web

server. Yates teaches of detecting the alteration of the content with a server load balancer through polling of the web server (see abstract). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Green within the system of Civanlar by implementing detecting the alteration of the content with a server load balancer through polling of the web server within the method, program, and apparatus for making content available for users in a computer network because this would allow the transformed document to be decrypted or untransformed so that data will be free of corruption and errors.

As per claim 31, Civanlar and Green do not teach of further including: notifying a server load balancer that the content has been altered. Yates teaches notifying a server load balancer that the content has been altered (see col.18, line 44 to col.19, line 10: "key"). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Green within the system of Civanlar by implementing notifying a server load balancer altered contents within the method, program, and apparatus for making content available for users in a computer network because this would allow the transformed document to be decrypted or untransformed so that data will be free of corruption and errors.

As per claim 34, Civanlar and Green do not teach wherein said request is in the form of a SYN packet with said original address located in a header in a payload field of the SYN packet. Yates teaches wherein said request is in the form of a SYN packet with said original address located in a header in a payload field of the SYN packet (see col.9, lines 21-22, 25-28, & 48-53). It would have been obvious to a person of ordinary

skill in the art at the time the invention was made to employ the teachings of Green within the system of Civanlar by implementing SYN packet within the method, program, and apparatus for making content available for users in a computer network because Yates teaches that SYN packets are implemented for a three way handshake (see col.9, line 21) and SYN packets do not contain information identifying the requested information (see col.9, lines 64-66), therefore, if a request was to be broadcast to all the plurality of routers, SYN packets would be ideal to establish a direct connection to the source once a source has been found, without broadcasting private information to other servers.

As per claim 35, further teaches of establishing a TCP/IP session between itself and the user if an entry in said table in said cache has an original location field identical to said original location address. Yates teaches of establishing a TCP/IP session between itself and the user if an entry in said table in said cache has an original location field identical to said original location address (see col.9, lines 15-19). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Green within the system of Civanlar by implementing establishing a TCP/IP session within the method, program, and apparatus for making content available for users in a computer network because Yates teaches that TCP/IP is the standard protocol for communicating via the Internet between two nodes.

Response to Arguments

9. Applicant's arguments filed January 6, 2004 have been fully considered but they are not persuasive. Responses to the arguments are addressed below:

(A) The various reference locations of the previous office action was cited to teach the functional elements suggested to be novel by the applicant and in no way was cited solely for the purpose of teaching "content". The element of "content" is implicit and not a novel aspect of the claimed invention. To one of ordinary skill in the art, data via the Internet (see col.1, line 10) is requested by a client and responded by a content provider, and within the request and response there comprises addresses embedded in headers of a data packet used for routing (see col.3, lines 58-62) as well as content within the body of the data packet. Furthermore, Civanlar clearly teaches of content (see col.7, line 66 to col.8, line 2: "data packet"). To better clarify the confusion, the examiner cited additional lines in the action above (see col.8, lines 23-46). Additionally, in the previous action, the examiner cited col.10, lines 6-7, which clearly teaches "content", but was not mention in the response.

In reference to the argument regarding "forwarding ...if...original location field identical to said original location address" and "transferring...if...does not have...original location field identical to said original location address", clearly describes a function of retrieving data when a match is found else propagating the request, which is known and employed in all aspects of data retrieval. Whether one field is used to perform the match or another is clearly subjective and does not constitute an invention because the

functionality remains the same, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

(B) In response to the arguments of claims 37 and 40, see the Response to Argument (A) above.

(C) In response to the argument of claims 1, 41, 46, and 51, Civanlar and Green clearly teach these limitations. Again it is inherent when Civanlar teaches of "data packets" (see col.9, line 2-4 and col.10, line 6), there comprises a header consisting of routing information and a body consisting of content (see Response to Argument (A) above).

(D) In response to the arguments of claims 10, 19, 42-44, 47-49, and 52-54, see the Response to Argument (A) above.

(E) Therefore, dependent claims 2-9, 11-18, 20-31, 33-35, and 39-39 remain rejected.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Young N Won whose telephone number is 703-605-4241. The examiner can normally be reached on M-Th: 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Young N Won

February 25, 2004

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER